difficult and have not always found a solution as yet. It is precisely one of the aims of this book to increase the number of those who can appreciate this side of the subject and will contribute to its elucidation."

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Handbook of Mathematics for Engineers. By E. V. HUNTINGTON. With Tables of Weights and Measures by L. A. FISCHER. New York, McGraw-Hill, 1918. 12mo. 5 + 191 pp. Price $1.50.

This volume is a reprint of sections 1 and 2 of the *Mechanical Engineers' Handbook* edited by L. S. Marks (1916). Mr. Fischer's tables occupy pages 70–85. The rest of the work is by Professor Huntington.

The "mathematical tables" (pages 2–69) are: squares of numbers, cubes of numbers, square roots of numbers, cube roots of numbers, three-halves powers of numbers, reciprocals of numbers, circles (areas, segments, etc.), spheres (volumes, segments, etc.), regular polygons, binomial coefficients, common logarithms, degrees and radians, trigonometric functions, exponentials, hyperbolic (Napierian) logarithms, hyperbolic functions, multiples of 0.4343 and 2.3026, residuals and probable errors, compound interest and annuities, and decimal equivalents.

The contents of the rest of the work are as follows: Arithmetic (Numerical computation, logarithms, the slide rule, computing machines, financial arithmetic), 88–98; Geometry and Mensuration (Geometrical theorems, geometrical constructions, lengths and areas of plane figures, surfaces and volumes of solids), 99–111; Algebra (Formal algebra, solution of equations in one unknown quantity, solution of simultaneous equations, determinants, imaginary or complex quantities), 112–127; Trigonometry (Formal trigonometry, solution of plane triangles, solution of spherical triangles, hyperbolic functions), 128–135; Analytic Geometry (The point and the straight line, the circle, the parabola, the ellipse, the hyperbola, the catenary, other useful curves), 136–156; Differential and Integral Calculus (Derivatives and differentials, maxima and minima, expansion in series, indeterminate forms, curvature, table of indefinite integrals, definite integrals, differential equations), 157–172; Graphical representation of functions (Equations involving two variables, equations involving three variables, equations involving four variables), 173–184; Vector Analysis, 185–186; Index, 187–191.

The volume contains a great amount of useful and interesting information admirably edited.

The American Society of Mechanical Engineers, New York. *The Weights and Measures of Latin America*[1] by F. A. HALSEY. New York, 1918. 8vo. 34 pp.

This is a report based on the replies received after distributing five hundred copies of a questionnaire throughout South and Central America and the West Indies. Four of the six questions of the questionnaire were as follows:

1. What are the units of weight and measure commonly used with relation to the buying and selling at retail of the following products?—Groceries, fruits, milk, butter and cheese, other farm products, hardware, fish, meat, flour, tea and coffee, dry goods, fuel, tobacco, miscellaneous.

2. What are the units of measure commonly used with relation to buying and selling articles of clothing, as follows?—Ready made clothing, hats, collars, underwear and hosiery, shoes, gloves, corsets, miscellaneous.

3. What are the units of measure commonly used with relation to the sale of lands and filing of paper and deeds as follows?—In the farming districts, in the smaller towns, in the cities.

6. What are the units of weight and measure commonly used with relation to transportation tariffs?—Railway tariff for passengers and freight (load and distance), loads and rates for city transportation, loads and rates for transportation by muleback across the mountains, railway track gages and length of lines, railway equipment (units used in the construction and repairing of locomotives, cars, etc.).

[1] Paper presented at the annual meeting of The American Society of Mechanical Engineers, December, 1918.